## **MARKET INFORMATION**

**OVERVIEW:** The market information module contains economic data used to evaluate the importance of the target industry sector to the overall market for the alternatives under review, and conversely, the economic importance of the alternatives to the industry sector. Market information includes chemical/technology cost information, production and manufacturing volumes, chemical/technological use breakdowns, and an analysis of market trends that could affect future supply and demand.

## **GOALS:**

- Evaluate the importance of the target industry sector to the overall market for the baseline and alternative chemicals and technologies.
- Compile price information for the baseline and alternatives to be used in the Cost Analysis module.
- Identify trends in the manufacturing and use of the baseline and alternatives that may influence future supply and demand.
- Compile information for the International Information module.

**PEOPLE SKILLS:** The following lists the types of skills or knowledge needed to complete this module.

■ Knowledge of market information data sources and the capability to evaluate market trends.

Within a business or a DfE project team, the people who might supply these skills include a purchasing agent or an economist. Vendors of the chemicals or technologies may also be a good resource.

**DEFINITION OF TERMS:** Not applicable.

**APPROACH/METHODOLOGY:** The following presents a summary of the technical approach or methodology for the Market Information module.

- Step 1: Obtain chemical CAS RNs and synonyms from the Chemical Properties module.
- Step 2: Using the most current data available, determine the total volumes of the chemicals and chemical products produced both in the U.S. and internationally, volumes imported and exported, volumes used by the target industry, and the names and

locations of current producers (see Table 5-21: Sources of Market Information). Some of this information will have been collected in the Industry and Use Cluster Profile, but chemical use volumes may be unavailable or considered proprietary.

When data are unavailable, a project team may estimate information so that the transfer of information to other modules will occur. Appendix F gives a detailed example of how chemical volumes were estimated in the screen reclamation use cluster.

- Step 3: For the baseline and/or alternative technologies and processes, identify the size of the market for the technology both in the U.S. and internationally, quantities exported and imported, quantities used by the target industry, and the names and locations of manufacturers within the U.S. and internationally.
- Step 4: Transfer information on chemicals or technologies primarily supplied by manufacturers outside of the U.S. to the International Information module.

  Information on international trade issues, as well as source, availability, and cost data for these alternatives are compiled in the International Information module.
- Step 5: Collect market price information for the baseline and alternative chemicals and technologies produced in the U.S. from the appropriate chemical or equipment vendors. Transfer market price information to the Cost Analysis module.
- Step 6: Evaluate the importance of the target industry to the overall market for the baseline and alternatives in the use cluster. If the industry is a major market for an alternative (i.e., the amount of chemical produced fluctuates in response to the demand for the chemical in this industry; a technology was specifically developed and marketed for the target industry, etc.), consider evaluating the environmental impacts of upstream processes, such as the chemical manufacturing process, in the CTSA.
- Step 7: Identify factors that could potentially affect the future supply or demand of the baseline or substitutes produced in the U.S. Possible factors include, but are not limited to:
  - Proposed legislation on the manufacturing or use of a use cluster chemical, such as bans or phase-outs (see the Regulatory Status module).
  - Any recent or expected improvements in technologies that could affect the future demand for a substitute in the target industry or in other industries.
  - Resource or production limitations.
- Step 8: Transfer any information about expected changes or shortfalls in the supply or demand for the baseline and alternative chemicals and technologies to the Risk, Competitiveness & Conservation Data Summary module.

**FLOW OF INFORMATION:** The Market Information module receives data from the Chemical Properties and Regulatory Status modules and transfers information to the International Information, Cost Analysis, and Risk, Competitiveness & Conservation Data Summary modules. Example information flows are shown in Figure 5-10.

International Chemical Information **Properties** Manufacturers and ■CAS RN and countries of origin synonyms of alternatives Market Cost Information Analysis ■ Equipment prices Chemical prices Risk, Regulatory Status Competitiveness & Conservation ■ Supply/demand Chemical bans **Data Summary** changes and phase-outs Supply short falls

FIGURE 5-10: MARKET INFORMATION MODULE: EXAMPLE INFORMATION FLOWS

**ANALYTICAL MODELS:** None cited.

**PUBLISHED GUIDANCE:** None cited. EPA risk management documents (Preliminary Life-Cycle Analysis and Pollution Prevention Assessment reports) provide examples of the types of market information collected during the second phase of EPA risk management assessments.

**DATA SOURCES:** Table 5-21 lists sources of market information.

TABLE 5-21: SOURCES OF MARKET INFORMATION	
Reference	Type of Data
Chemical Business News Data Base. Updated Periodically.	Data base containing chemical market trends.
Chemical Economics Handbook. Updated Periodically.	Chemical volume and consumption data.

## PART II: CTSA INFORMATION MODULES

TABLE 5-21: SOURCES OF MARKET INFORMATION	
Reference	Type of Data
Chemical Industry Notes Data Base. Updated Periodically.	Data source for chemical industry production and trends.
Chemical Marketing Reporter. Updated Periodically.	Profiles of chemicals containing production data and market trend information.
Directory of Chemical Producers: United States Producers. Updated Periodically.	Chemical production information including manufacturers and production data.
Kirk-Othmer Encyclopedia of Chemical Technology. Updated Periodically.	Chemical production information including manufacturers and production data.
Mannsville Chemical Products Synopsis. Updated Periodically.	Chemical volume and consumption data.
Mines Data Base. Updated Periodically.	Data source for raw mineral and metal production.

Note: References are listed in shortened format, with complete references given in the reference list following Chapter 10.